

CLAIM SET AS AMENDED

1. (Currently Amended) A heat-developable image recording material comprising:

a support;

a photosensitive silver halide;

a non-photosensitive organic silver salt;

a reducing agent for a silver ion; and

A4
a binder in an emulsion layer wherein the binder including includes a polymer latex, ~~wherein the polymer latex has~~ having a halogen ion content of not more than ~~500~~ 100 ppm.

2. (Currently Amended) The heat-developable image recording material as claimed in Claim 1, wherein the ~~polymer latex has a~~ emulsion layer is an ~~halogen ion content of not more than 200 ppm~~ image forming layer.

3. (Original) The heat-developable image recording material as claimed in Claim 1, wherein the halogen ion is a chlorine ion.

4. (Original) The heat-developable image recording material as claimed in Claim 1, wherein the polymer latex is not subjected to purification by a desalting process.

5. (Original) The heat-developable image recording material as claimed in Claim 1, wherein the binder has a glass transition temperature of from -20°C to 80°C.

6. (Original) The heat-developable image recording material as claimed in Claim 1, wherein the polymer latex contains a conjugated diene copolymer.

7. (Currently Amended) The heat-developable image recording material as claimed in Claim 1, wherein the reducing agent contains:

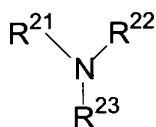
AS a phenol compound; and

a compound that satisfies at least one of the conditions (A) and (B):

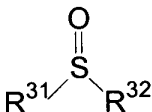
~~(C)~~ (A) : the compound having a hydrogen bond-forming rate constant (Kf) of from 20 to 4,000,

~~(D)~~ (B) : the compound having one of a phosphoryl group in its molecule, and a structure represented by formula (II),

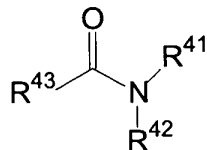
(III), (IV) or (V):



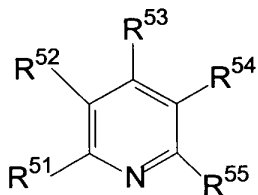
(II)



(III)



(IV)



(V)

wherein R^{21} and R^{22} , which are the same or different, each represents an alkyl group; R^{23} represents an alkyl group, an aryl group or a heterocyclic group; at least two of R^{21} , R^{22} and R^{23} may be combined with each other to form a ring,

R^{31} and R^{32} , which are the same or different, each represents an alkyl group, an aryl group or a heterocyclic group; R^{31} and R^{32} may be combined with each other to form a ring,

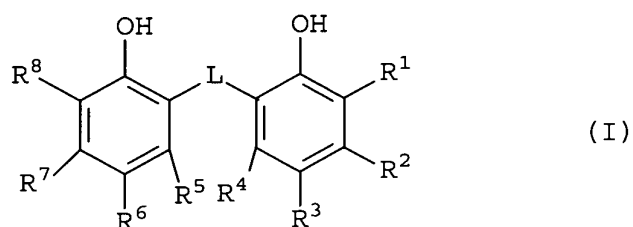
R^{41} and R^{42} , which are the same or different, each represents an alkyl group, an aryl group or a heterocyclic group; R^{43} represents an alkyl group, an aryl group, a heterocyclic group or $-N(R^{44})(R^{45})$;

as R⁴⁴ and R⁴⁵, which are the same or different, each represents an alkyl group, an aryl group or a heterocyclic group; at least two of R⁴¹, R⁴², R⁴³, R⁴⁴ and R⁴⁵ may be combined with each other to form a ring, and

R⁵¹, R⁵², R⁵³, R⁵⁴ and R⁵⁵, which are the same or different, each represents a hydrogen atom or a substituent; at least two of R⁵¹, R⁵², R⁵³, R⁵⁴ and R⁵⁵ may be combined with each other to form a ring.

8. (Original) The heat-developable image recording material as claimed in Claim 7, wherein the phenol compound is an o-polyphenol compound.

9. (Original) The heat-developable image recording material as claimed in Claim 8, wherein the o-polyphenol compound is a compound represented by formula (I):



wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸, which are the same or different, each represents a hydrogen atom or a substituent capable of being substituted on the benzene ring; L represents -S- or

-CHR⁹-; and R⁹ represents a hydrogen atom or an alkyl group.

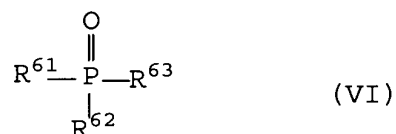
10. (Original) The heat-developable image recording material as claimed in Claim 9, wherein the compound represented by formula (I) is a compound in which R², R⁴, R⁵ and R⁷ each represents a hydrogen atom; R¹ and R⁸ each independently represents an alkyl group; R³ and R⁶ each independently represents an alkyl group; and L represents -CHR⁹-.

11. (Original) The heat-developable image recording material as claimed in Claim 10, wherein R¹ and R⁸ each independently represents a secondary alkyl group or a tertiary alkyl group.

12. (Original) The heat-developable image recording material as claimed in Claim 7, wherein the hydrogen bond-forming rate constant (Kf) is from 70 to 4,000.

13. (Original) The heat-developable image recording material as claimed in Claim 7, wherein the phenol compound is an o-polyphenol compound, and the compound which satisfies at least one of the conditions (A) and (B) is the compound having a phosphoryl group in its molecule.

14. (Original) The heat-developable image recording material as claimed in Claim 7, wherein the compound having a phosphoryl group in its molecule is a compound represented by formula (VI):



wherein R^{61} , R^{62} and R^{63} , which are the same or different, each represents an alkyl group, an aryl group, an aralkyl group, an alkoxy group, an aryloxy group, an amino group or a heterocyclic group.

15. (Original) The heat-developable image recording material as claimed in claim 1, which further comprises an image-forming layer containing the photosensitive silver halide, the non-photosensitive organic silver salt and the binder.

16. (Original) The heat-developable photosensitive material as claimed in claim 15, wherein the image-forming layer further contains the reducing agent for a silver ion.

17. (Original) The heat-developable photosensitive material as claimed in claim 15, which further comprises a second image-forming layer containing the reducing agent for a silver ion.